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A preliminary study of T-2 and HT-2 toxins in cereals sold in traditional market in South Korea

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Abstract

Fusarium species are responsible for the production of harmful trichothecenes mycotoxins in cereals. These mycotoxins are cytotoxic, potentially immunosuppressive and potent fast-acting inhibitors of protein and nucleic acid synthesis. This study validated a HPLC method for simultaneous detection of T-2 and HT-2 toxins. The method was then used for the detection of T-2 and HT-2 toxins in cereals sold in traditional markets in Gyeongnam Province, South Korea. Seventy five samples analyzed, out of which 13 and 25 samples were found to be contaminated with T-2 (35.2–431.0 ng g−1) and HT-2 (21.1–442.7 ng g−1) toxins, respectively and 4 samples were found to be contaminated with both toxins. This study provides data on the contamination level of T-2 and HT-2 toxins in cereals in traditional market in Gyeongnam province, South Korea.

Keywords

T-2 toxin; HT-2 toxin; Cereals; Simultaneous detection; Traditional markets